Russel Clark
at ~~Hopes at the old baptist~~
meeting house ~~in hartford~~

Manuel Clark's.

Taken at Philadelphia in the year 1808 & 1809

No. 33

Lecture 1.

Inflamation

There is [illegible] nothing more
needs of for the Surgeon to [illegible]
[illegible] the principles of inflammation for
as there is a certain degree of [illegible]
[illegible] in [illegible] part of the
[illegible] there is [illegible] the
[illegible] be [illegible] of [illegible]
[illegible] of course [illegible] [illegible]
[illegible] of [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
of [illegible] [illegible] [illegible] [illegible]
the Surgeon. [illegible]

[illegible]

[illegible] of [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

an instance of the former we see in inflam-
-mation [illegible] synovial [illegible] frequently [illegible]
[illegible] is the result of exposure of the
[illegible] and [illegible] inflammation becomes
[illegible]; for instance: [illegible] case of
[illegible] and after inflammation which
was very weak, [illegible] resistance [illegible]
[illegible] the physician finds [illegible]
[illegible]

[illegible] performs its functions
with difficulty an instance of [illegible]
[illegible] inflamed [illegible]
[illegible] of union.

Inflammation is of three kinds viz the
adhesive, suppurative & ulcerative [illegible]
[illegible]
[illegible].

Inflammation is not necessarily a disease.
[illegible] disease [illegible]
of the part. [illegible] inflammation is [illegible]
necessary for its restoration. In the

healthy

[illegible]

ation [illegible], [illegible] is some time the remote cause which [illegible] makes exposure [illegible] inflam̄ when [illegible] then takes place it is called a [illegible] cause.

The effects of the remote cause are suppos'd [illegible] by most [illegible] [illegible] accompanied [illegible] will [illegible] [illegible] person [illegible] a ostensible [illegible] experience [illegible] determined [illegible] without [illegible]. There are only [illegible] of the [illegible] of Inflammation [illegible] following terms, [illegible] [illegible] [illegible] ESS - The [illegible] kinds of Inflam̄ are adhesive, & suppurative,

[illegible] adhesive inflam̄ is an increased action of the vessels causing an extravasation of the coagulating lymph - it begins in the small vessels & spreads from a point [illegible] for the most part it spreads over a large surface [illegible] always greatest at the point where it began.

Suppurating inflam̄ is an increased action of the vessels secreting Pus. [illegible]

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] for [illegible] Process the Local [illegible] are fre-quently caused by [illegible] [illegible] [illegible] to [illegible]. A remarkable instance [illegible] of the eye [illegible] [illegible] [illegible] was cured by the accidental bursting of an [illegible] [illegible] [illegible] [illegible] been [illegible] case of [illegible] [illegible] [illegible] stage

[illegible] [illegible] one of the [illegible] it proceeds to Inflammation [illegible] [illegible] [illegible] accident and proceeds to [illegible] we should attempt Resolution in general. But there are cases in which Resolution should not be attempted. [illegible] [illegible] [illegible] but we [illegible]. [illegible] [illegible]

[illegible]

removed. It is occasioned by a [illegible] constitutional disease or fever. [illegible] [illegible] owing to the removal of any worse disease. When it occurs in any important part it should always be attempted to be removed — [illegible] is necessary on the situation of the [illegible] —

Treatment [illegible] the [illegible] and reduce the inflammatory action that [illegible] take on or [illegible] —

[illegible] general or constitutional [illegible] bleeding. Purging. Neutral salts, antimonials, Diluents, Tamarind-water, &c [illegible]

[illegible]

[illegible]

[illegible] Biot's theory [illegible]

[illegible] and recorded by him

[illegible] the science of the heat [illegible]

[illegible] of the least resistance [illegible]

[illegible] the [illegible] of the [illegible]

[illegible] when the particle [illegible] [illegible]

[illegible]; [illegible] [illegible]

in [illegible] cases [illegible] of the [illegible]

[illegible] in cases of directed forces!

That [illegible] is [illegible].

Nature, [illegible] in [illegible], and

[illegible] [illegible] [illegible] [illegible]

to create a [illegible] [illegible].

[illegible] [illegible] [illegible] [illegible] in the

[illegible] [illegible]. [illegible] [illegible] of the

[illegible]

[illegible] [illegible] [illegible] of the [illegible] [illegible]. The [illegible] [illegible] of a moderate [illegible].

The local remedies are [illegible] [illegible] verification [illegible] & [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

When [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] become [illegible] [illegible] [illegible] else [illegible] [illegible] [illegible] as a stimulus.

3d. Vinegar [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

4th. Poultices. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] Poultice [illegible], the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. Poultices are [illegible] in [illegible] from contused & [illegible] wounds.

5th

5th Blisters. [illegible]

[illegible] of [illegible] large

[illegible] inflammation [illegible]

[illegible] by the evaporation of [illegible]

[illegible] indeed is in the [illegible]

[illegible] blisters are of [illegible]

[illegible] the [illegible] when we are [illegible]

[illegible] of [illegible]

On the good effects of [illegible]

They are instances in [illegible]

[illegible] are [illegible]

[illegible] distinction

[illegible]

prevents the [illegible] excellence [illegible]

The abscess [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Lecture [illegible]

of Suppuration & Ulceration -

We come now to [illegible] of [illegible] of Inflam[illegible] [illegible] not [illegible] by [illegible] the name [illegible] mentioned [illegible] [illegible] or of the [illegible] [illegible] Resolution the Suppurative state [illegible] will be. Here the [illegible] acts [illegible] [illegible] [illegible] [illegible] [illegible] supposed to produce [illegible]. [illegible]

[illegible] occasioned [illegible] the [illegible] case when the [illegible] has been [illegible] notwithstanding the violence

[illegible]

[illegible]

[illegible]

Beating sensation; the swelling enlarges the part becomes softer and on pressing a fluctuation is felt. There is at the same time an alteration in the color of the tumor from a redder to a paler [illegible] or [illegible] yellowish appearance in the most prominent part of the tumor. [illegible] is [illegible] termed an abscess or circumscribed tumor containing pus. Abscesses are often attended with rigors [illegible] succeed with fever & sometimes death, when they are removed by evacuating them; if the pain be very great it may be relieved by opium and this more effectually if [illegible] be [illegible] to the [illegible] [illegible] [illegible]. A poultice of bread & milk is usually applied to the tumor in order to [illegible] part is absorbable; and there an opening is generally naturally made by an absorption of parts beneath the skin [illegible] opening is sometimes made by the skin

and

and pants beneath covering the skin & ligaments
- ing [illegible], where it is to be worn generally
[illegible] a petticoat [illegible] [illegible]
[illegible] natural covering [illegible] to
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] one. There is [illegible] [illegible]
This opening is the main entry. 1. If the feet
be cleaned on the mixture or sudorifics. 2. If [illegible]
over any of the joints. 3. If attended with great
[illegible] in Pronunciation, the Pain of Pronunciation
may be almost immediately relieved [illegible]

On Inspiration attended with [illegible] [illegible]
the constitution [illegible] [illegible] [illegible]
irritation with the power of the constitution
is unable to [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
of [illegible] or any of the [illegible] [illegible]
[illegible] of [illegible] [illegible] [illegible] [illegible]
[illegible] of [illegible], cold night sweats, [illegible] to
sweat on [illegible] little exertion; the [illegible]
small [illegible] & frequent. Urine high
coloured

coloured and exhibits a curious [illegible]

and [illegible] increase & certain tenderness

frequently terminates in Diarrhoea. Cullen

says that the hectic fever in consumption is

from an absorption of Pus. this is not the

case for large bubos are absorbed without

a symptom of hectic [illegible] there is

hectic fever, followed the absorption of the Ex-

-ploration indeed [illegible] to the condition of the

The process of inflammation some times

suddenly stops and the matter remains and

is absorbed. this is a very [illegible] termination

and of course it is a desirable thing and

medicines which will produce this effect

many medicines have been used for this

purpose. Emetics & Cathartics have

have been known to induce this effect &

the matter formed in bubos has been

absorbed by vomiting induced at once

have [illegible] [illegible] [illegible] & [illegible]

to be of no use, hectic fever instead

of

[illegible] the [illegible] of [illegible] [illegible] [illegible]

obtains the credit of accelerating the discharge of [illegible] they not only [illegible] [illegible] the [illegible]

Blisters promote absorption by irritation.

[illegible] on the [illegible] [illegible] [illegible] [illegible] [illegible] of [illegible], Such as impede respiration should be immediately [illegible]

The Tonsils are sometimes so enlarged by [illegible] as to impede respiration - they should [illegible] be [illegible] [illegible] [illegible] [illegible]

Matter does not always absorb [illegible] the [illegible] e.g. in tumors containing [illegible] [illegible]tion does not [illegible] the line between it and the external surface of the [illegible] [illegible] times [illegible] [illegible] [illegible] more [illegible] [illegible], hence the necessity of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] or [illegible] [illegible] [illegible]. [illegible] a [illegible] [illegible] the a periodical [illegible] in this [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] opening the [illegible] [illegible]. [illegible] [illegible] [illegible] all the symptoms of nervous fever

[illegible]

produced by a fine wire passed over the abnormal vessel. In the first case the patient died among the convulsions of the cause of the disease. In the second case the attack was opened and the patient recovered

I have known another similar instance of cicatrix in the axilla.

Disease in the axilla is treated upon the same principle as the other parts of the body, by cleaning the ulcer, & if necessary, excision of the part.

There are three ways of treating aneurisms 1st by incision. 2d by pressure 3d by caustic. The first is the best when it can be done. The second prevents it: in this case a tourniquet of depris (altho' not so applicable on the place of 8 or 10 minutes the vessel will be on w/c

[illegible] will be the first after the [illegible] of the tent

on the

in the same manner as milk.

Pus when it is in a healthy state is a light straw coloured serum or [illegible] of cream, containing a number of globules. It does not coagulate by heat or exposure to the air but becomes opaque; it does not readily putrify; it does not readily miscible with it; it is not corrosive. It is said to be of a sweetish taste; it is found in the other fluids of the body by its containing a peculiar acid, a peculiar color and a [illegible] in a fluid coagulable only by Sal-ammoniac, which is not the case with any other animal fluid. [illegible] that it is a secretion of the vessels taking on the nature of glands and the glands are not known till after it is formed and of the cells - [illegible] secretion should be assisted by secretion.

The same secretory [illegible] according to different circumstances - [illegible]

[illegible]

[illegible] is found in the [illegible] in three days after [illegible] the [illegible].

[illegible]

Ulcerative Inflamation.

Ulceration takes place mostly after suppuration; but suppuration takes place after the extraction of dead [illegible]. In ulcerative inflamation a [illegible] is accompanied with [illegible] is removed by absorption. It commences usually after the inflamatory stage, and has been known to recur at six weeks of [illegible] and in some particular situations or where [illegible] result of a [illegible] takes place. [illegible] has reached his [illegible] inflamation. The part of the body [illegible] which is required the [illegible] in the absorption of the [illegible] is called [illegible] and this is [illegible] symptoms of ulceration; for we find the [illegible] vessels are not [illegible] when they proceed slowly,

tonsy, but were rarely to be attended with great Pain –

We will next proceed to a description of Particular Parts and first of

Mammary Abscesses.

Remarkable instances of ulcerations attended with inflamation occurs in mammary abscesses or tumors. These may either be seated in the Glandular Parts or in the cellular Membrane. If it begins effects the whole gland at once of part of the glandular substance the disease the secretion of Milk is commonly diminished but if the whole of it is affected the secretion is suspended altogether – but when the cellular membrane is alone affected the secretion of Milk is not much diminished. In abscesses or inflam of this gland, the Breast becomes stiff unwieldy and painful: floating fluctuation to the touch the one visible, necessary by a wound at a small distance to the seat of the affection into the Milk runs off in small quantities & the

patient

Patient is liable with authority to fever
which is more likely than a tumor
but. Fever may exist alone or the
disease may be long or very trivial, but the
fever never this disease must always be
taken as the primary after parturition. There
cases have shown or never the till they have
arrived to a considerable degree of swelling
the manner differing must quite consistent
in the cases the first always fail in their
attempts. The information is generally
in respect of index of the breasts pelvic
then it commence in decrease and finally
in some times do great as to give the difficult
the main in these cases is very intense,

Now the adhesive inflam takes place
the secretion should in some times under
the treatment being again released after the
index nature. The bowels are constipated
and on pain. There seem flow at
various sizes, some as large as the dist-

place

have no doubt concerning the cause by
which induce a the intestinal secretion

These relations are presumed owing to mech-
anical causes as tight stays, & are to cover
stimulating the vessels & long retention with the
milk - they are sometimes produced by
the persons taking cold.* In those cases
where the gland is enlarged they seldom
return to their formerly size - some times
the gland is very much reduced in
size & never secrete milk -

Treatment. If a child is the same as stated
bleed according to the strength of the patient
exhibit a Mercurial purge, & put the patient
upon a strictly vegetable diet - The breast
may be avoided with some oil if it be
convenient for the patient to be confined &
should be done, if not at least the breast by
holding a handkerchief around the neck - if
inflm continue bloodletting should be repe-
ated, and application of Leeches in the rest
well

will be found of great utility. Wear & tear
Poultices, with lead water, are highly ser-
viceable and should be applied until after
evacuations have been insensible. If there
do not quite relief & the inflm. continue: a
Blister should be applied first on one side
of the Breast & then on the other. A great
variety of Pastes have been used and are
often recommended; but I believe they are
all of manifest efficacy. The matter is not
so trivial as might be wished; I have
[illegible]

[illegible]

If it becomes necessary to give the aperient, it is some times advised to do it previously by making a large dilution; but if have succeeded the making a, in the case of the [illegible] bowels, and [illegible] and [illegible] the bowels in such it other - the bowels must be drawn occasionally the [illegible] the [illegible] collected fluid or Pus - in the case of Cutaneous [illegible] remaining [illegible] [illegible] to be the hot & depleted generally by bleeding (Purgative and without any effect, the [illegible] ation of Blisters removed the [illegible]

I remember the [illegible] of an indurated gland (attended with hard cancer) [illegible] and cured by bleeding & the anti-phlogistic regimen, by blistering and [illegible] being with the mercurial ointment where the tumor was as large as the fist - a mercurial ointment is good in resolving tumors.

Perhaps in the first stage the [illegible]

[illegible]

Saint Vincent any apparent cause is generally a deficiency of nutrition which may be cured if taken in time by purging — Swellings are occasioned by a retention or tendency out of coagulable lymph into the cells of the cellular membrane — Tubercles which are inflammed cause a coagulating lymph which adheres to the internal parts and becomes vascular & cold —

Mr. S. the reason of the shortness of the Lectures commenced by the Pineal Gland is that it prevent as much as one third of the time intended for his Lecture in answering his hearers on the subjects of the former Lecture and recapitulating it —

Lecture —

Lecture 3d.

Of Paronychia

Paronychia is a painful inflammation usually at the ends of the fingers, with frequently cold in suppuration. It is attended with burning or excruciating Pain according to the seat of the disease. Paronychia may be divided into 4 kinds. 1st when seated in the cuticle. 2d in the adhesive membrane under the skin in which the pain is much greater and more frequently effused under the Nail - the whole finger becomes swelled & painful. 3d In the flesh of the Tendons & 4th in the Periosteum. In the last case the pain is very great the swelling at first. when it takes place in the adhesive membrane the pain is more dull than at the other stations taking place - the matter formed in these two last species of Paronychia has sometimes taken along the

course of

course of the tendons under the Ligament of the wrist, and formed a tumor at the lower part of the forearm. The cases often become serious & the tendons some times slough away & have been seen perforation of the skin.

It is a difficult matter to point out the causes of Ganglions. I have seen it in one instance produced by the bite of a Squirrel. They are likewise produced by nerves running through the wrists, or in Sailors, Barbers & Weavers &c into the inclosures — In the treatment of Ganglions there is not much to be done in first kind, and requires but little attention. It must be opened and treated with injections Stimulate or Simple water entering Saccharum Saturni — When it is situated deeper from the Skin make an incision down to it and if any part of the bone be decayed it ought to be immediately to be taken away — in Tapping may be for the best but or a practice —

Barlow

Bathing water has likewise been advised in cases of paralysis. It is a tonic remedy, and it acts merely as a substitute.

If the matter of the urethra or perineum and the bones become carious & hanging the rectum: the matter should be evacuated and the carious bone removed if practicable if the matter had taken a course of a fistulous longitudinal incision should be made before the injury which might result comes on. If matter have formed in the rectum it should be cut out at the most intending part. Sometimes if the orifice is small & granular the fungus are prevent its healing. For destroying the excrescence, escharotics will be found tedious and often in vain. It should be removed by enlarging the incision —

of

of the Psoas Abscess

This disease is situated in the cellular membrane under the Psoas Muscle; some matter is discharged in the sheath of the cellular substance.

Among the remote causes of inflammation may introduce this disease — In the hospital of the Charity of the Lady; it generally follows caries of the Bones along the Bones.

It generally comes first at first in the dorsal regions, but at some times goes out in the and causing any pain for three months — The region on the side affected is weak, the Patient cannot well stand the generally leads the body to relax the Muscles on the side affected, he can not well rotate the thigh, and is affected with nigors. At some times happens that months elapse before any one mark of it can be seen [illegible] not always the same — it is first seen on the [illegible]

-ium and I have seen it form in the [illegible] attack,

Some times the tumor is situated on the outer part of the thigh some times at the Loins. The integuments over the abscess are not discoloured - the tumor is most tense when the Patient stands upright when lying down it is soft & relaxed. Pressure be made on the tumor it will be diminished as the [illegible] pressed in [illegible] & [illegible] coughing renders it more tense. The fluctuation may be easily felt.

These Abscesses never open forward into the cavity of the abdomen but have some times ruptured the sides of the contiguous Vessels, and thereby produce fatal hemorrhage - if they continue a long time they may occasion a Caries of the Vertebrae. When it protrudes at the upper part of the thigh, it appears like Hernia. it has also been confounded with

Fistula in Ano

Treatment. If we be called to the patient in an early stage of the disease, we must keep him at rest, and we must avoid all unnecessary heat, keeping constipation on the back, and reducing the quantity of food, purges, & make the patient take an injection a little warm twice daily, & to apply Lines on the bowels.

When the tumor has formed externally it has been a disputed question whether the use of a bougie should be used or not. In some instances we should be obliged to make an opening into the cavity but when it is only in danger of bursting the patient is in danger if it be left to burst itself.

The cavities will sometimes be found multiple, by which the first intention is frustrated. The wound attack being the cause of all the symptoms.

C. T.

Mr. Pearnethy no doubt, thinks we take from
the Spectator, not in order to vindicate the
idea of the second magnitude of the
[illegible]. He has proceeded to perform
the operation with a lancet, the punct-
-ure is made in the longitudinal direction
of the vessel. Just as made one incision
through the skin, then [illegible] the muscle
which is [illegible] in the muscles, by this
means [illegible] a [illegible] opening.
The [illegible] are [illegible] by this
[illegible] the [illegible] of the skin is because
they cannot imitate the flesh and when
the matter is discharged [illegible] if the lum-
-edges of the wound [illegible] adhesive
plaster — when the matter is [illegible] a
[illegible] [illegible] [illegible] the skin with
the lancet [illegible], [illegible] any danger of the sides
of the wound will be kept together and so
cause it not to become inflamed. This is the
best method of bleeding the abscess. I have
tried this

three times [illegible] [illegible] [illegible] [illegible]

is [illegible] [illegible] [illegible] I have not

been able to [illegible] [illegible] [illegible] [illegible],

because all the cases I have seen have

been attended with a loss of the Epithe-

lium, however very unfortunately the

puncture does not always unite by the

first intention, and when this does

happen, the water continues drain-

ing, and with it the whole cause

comes on more acute.

Besides the different inflammations

before spoken of there is some others and

those of

Erysipelas

This is an [illegible] of the [illegible] [illegible], it

some times begins in the face [illegible] and

spreads over the whole body. It is fre-

quently preceded by shivering which is

followed by a hot fit. The skin is of

a light yellow in some cases; and then

appear

[illegible] [illegible] [illegible] is [illegible], if [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] days [illegible]; but on removing the [illegible] the [illegible] [illegible]. The [illegible] is not [illegible], but burning & stinging. The [illegible] is often much [illegible], [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] in the other. The Inflammation [illegible] [illegible] than the adhesive [illegible] [illegible] [illegible] from the adhesive inflam (in [illegible] coagulating lymph is thrown out) by an extravasation of serum, which is thrown out frequently into cells, which form blisters on the surface - when the inflam extends to the cellular membrane, suppuration is often the consequence, because the membrane is unable to exist in the union as in adhesive inflam. [illegible] Erysipelas attacks the face the [illegible] become swollen so as entirely to preclude sight. The termination is [illegible] & is [illegible]. It [illegible] [illegible] [illegible] when they reach

[illegible]

excoriate. An inflection of the intestines running from cell to cell in the adipose membrane causing death in the post-mortem. An intestinal piece in the cellular membrane and discharged in flakes with the stool, and in many apertures. This is most the case when the disease is chronic.

Pain. Sometimes the patient complains of a sensation of a long burning pain at the pit of the stomach, the pain is also complained of the whole chest & inside of the mouth is very dry.

Causes. The causes are not under the control of man, & will not encounter the same. Sometimes comes on spontaneously without any apparent cause —

Cure. The Bezoar and the cure.

The

The case is much the same as in common inflx. It may generally be removed by attending to the antiphlogistic regimen before suppuration takes place. And when suppuration supervenes it must be attended to. If pus cannot be evacuated it, or at least to the utmost extent possible, by the collection becomes dangerous. Fortitudes and immediately leave discharge the cause colonies or bones. The application of a blister, or rather of the parts on the external surface of the inflamed part is of great service and if some of the blisters are prompt in their effects over the inflamed parts with very good effect. When it extended over the face I applied the blister first to one side then to the other. I mention a case of Freedom Symptoms which of the leg & thigh being cured by the application of blisters over the inflamed parts. The inflammation generally terminates in about five days —

Edema

Oedematous Inflamation

Oedema [illegible] is [illegible] very [illegible] [illegible] [illegible]

Burns & Scalds

The morbid effects produced by the application of heat, differ according to the intensity of the heat, and the time of its continuance. Its effects are first, upon the degree of heat is low, a redness and of the part affected. 2. Vesication causing a separation of the cuticle, attended with an effusion of serum. 3. The death of the part forming an escharby the caustic. By this it destroyed the skin, cellular membrane, muscles & bones of the parts. Sometimes the effect is confined to the skin only. The heat of a burning coal or of any of the mineral acids produce this effect. Some times the cases are discharged by the exfoliation of bone and it frequently terminates in death. In the life of a part only is destroyed. The patient does not feel any pain. Heat is in after the first effects are over. The other two

by Dec.

4 days, when the inflammatory stage of Laughing Tales place for the restoration of the vocal cords. I lived a little boy who undertook to walk the ridge of a cuddoon his legs free of very not water in a tape measure, when his foot slipping he plunged into the midst of it. He was wet nearly two hours over, and his teeth chattering the rest of the night a consequence he was very much burned. His pulse was scarcely perceptible his extremities cold, a heavy drowsiness prevailed. He was very restless & he constantly changed his position. He did not speak much, when asked a question and then he answered very rationally, & when interrogated respecting his feelings he said he felt no pain. He died in about 6 hours. When these symptoms are produced by gout the patient sometimes recovers. In judging of the consequences, we must pass on the extent of the injury

and use

A case of the Patient, I know are more
dangerous in many & in none of the
epidemic. Mortification generally ensues
in all People — Burns affect the skin
the most, the flesh more habit at times fatal
also — If it be small just the size of
or the eighth part great, there is no danger.
a deep burn if it be of small extent, or
spread but little, is but a small injury; but
if it be of great extent it is very dangerous
of extremely dangerous — Burns in multi-
plies are the very most dangerous accidents
incident to the human frame — Burns occasioned
by any of the Hamilton Metals appear of no
serious consequence at first, but after some
time the skin & flesh sloughs off and leave
the bones bare; hectic fever ensues & the
Patient dies — Burns accompanying over large
parts frequently occasion very alarming
symptoms; Hectic fever comes on & unless
Patient is vaccinated necessary for the recovery
of the

movement of the Patient.

I consider 1st. resulting from burns differing from all other inflammations, in that it takes place in a different kind of gland of air or any other irritation leaving the lymphatic glands, which is not being capable of resolution, and causing induration of the inflammation, which more resembles fungus granulation that we may expect to be suppurated. 3d. The cicatrices formed by ulcers resulting from burns, have a disposition to contract much more than other cicatrices not the result of burns, causing thereby a much greater deformity of the part affected. 4th. They are cured by totally different remedies as Volat. alkali, Spts. Turpentine.

Treatment. The Remedies employed in cases of burns are very numerous, they are either general or local. Most authors advise the letting remedies in burns indiscriminately but they should not be used unless fever and

and great inflm. supervene. If the bowels be extensive and great weakness attends: the patient may be supported by Port wine, & even Brandy & water. he should have any nourishing aliment he can devise. If the extremities be cold apply Sinapisms. If gan^n. this mortifying form of treatment, inflm. and fever should supervene, bleeding & a more sparing diet would be necessary.

The Local Remedies generally advised, are cold water, soap-suds, and the Bark in a [illegible] form recommends Ice above all other remedies applied to the part. I have found very [illegible] [illegible] the [illegible] [illegible] water. Lime water & oil, [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] of mixed oil & lime water, and the common [illegible] are strongly [illegible].

Some use water with as much common salt as can be mixed in it as a local wash. On the very first writing applications have been used

It acts specifically like Serum in curing the
Venereal disease.

[illegible] as [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]

great care must be taken lest a pressure
from the hand and arm will produce
in them undue heat & swelling. If for
instance upon a blister at the finger joint
something between the wrist and the well
hand. When the hand and fingers are much
burned it might seem to be best with
splints to keep the hand & fingers extended, &
the fingers kept clear one and other. The splint
will prevent the new granulations from
forming in a contracted state as is apt to be
the case in Burns, and the fingers from
growing near to each other, & thus a stiff
hand is left behind as the sole result of
a consequence of injudicious treatment
were kept in such a manner as frequently
to be not a very remote of certain to the joints
the fingers from each other, and from the palm
of the hand. — We are frequently not called
to cases of burns for several days after they
have taken place, and a number of amputations
have

have been tried & have failed to remove time & Basilicon when not called till five or six days after the accident - In one case of a burn of a child, the Basilicon was applied, but owing to the deterioration of the parents together with the clamours of the neighbours, it was ordered for 3 or 4 days to be left off; the child became worse and a surgeon was called in & the use of the Ointment was left off for again on the last day blisters were formed above, and the Turpentine & Basilicon were again resorted to & soon cured the child -

In the case of a Patient who was burnt with gun powder the wounds were on the hands entirely left alone in about 24 hours after the application of the ointment. However it is to be complained of that in a little time, which upon examination appeared not to have any of the Turpentine upon it, and when the application to this part the hands became

[illegible] are generally difficult to cure; but I have found that the Sulphuric & Basilicon cures them very readily

Indurated parts which in contact are very apt to grow together [illegible] the surfaces [illegible] with each other while they are suppurating [illegible] the parts will adhere by the union of granulations as in the case of [illegible] with lint treatment, and the surfaces of the [illegible] grow to the [illegible] by an adhesion that is not [illegible]

[illegible]

[illegible] and the prospect of the [illegible]

[illegible]

[illegible]

[

Lecture 4th

Fortification

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

degrees

[illegible] heat or [illegible] — 2d. [illegible] action of the [illegible] of heat in the part, either [illegible] or by [illegible] the [illegible]. they both operate in the same way by [illegible] off the [illegible] of blood.

When a part loses its life by [illegible] the [illegible] first [illegible], then [illegible], while the heat & sensibility are lost. The [illegible] [illegible] with [illegible] of [illegible], [illegible] an offensive smell. [illegible] [illegible] Poultice of bread & milk to [illegible], or a [illegible] Poultice may be continued till the parts separate. In cases of [illegible], [illegible] [illegible] use of [illegible] is necessary. Opium should be given to relieve the pain; and [illegible] the constitution sinks from the [illegible] and wine [illegible] be [illegible]. —

[illegible] cold, is not severe enough to kill [illegible] duces first [illegible] the [illegible]

ed

[illegible]

[illegible]

[illegible] becomes detached.

[illegible] opium

[illegible]

[illegible] Disease [illegible]

[illegible] will

[illegible]

[illegible]

[illegible]

Section 5.

Wounds.

[illegible]

[illegible] Incised [illegible]

[illegible] Contused [illegible]

[illegible] Lacerated, Punctured, & Gun-shot [illegible]

[illegible]

[illegible] the [illegible]

language. [illegible]

[illegible]

Lacerated Wounds

[illegible]

[illegible]

Bounds of the Tale

Euclids

Bounds of the Life.

6

Reximen

[illegible]

[illegible]

[illegible]

[illegible]

Wounds of the Nerves & Tendons

[illegible]

[illegible] Amputation, but [illegible]

[illegible]

[illegible]

[illegible] Amputation & Swelling of the [illegible] sections after Amputation. [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Heads of the Veins

[illegible]

Heures

Interruptei

Transit Bands

When time was used it was used to
distinct species of bands.
Ligation & gangrene

[illegible]

[illegible] relating [illegible] made [illegible]

But [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible]

[illegible] of the [illegible] of the [illegible]

[illegible] the [illegible] of the back [illegible] of the [illegible]

[illegible] back [illegible]

[illegible]

Illcus.

[illegible]

Manner of treatment [illegible]

[illegible]

2. Chemical [illegible]

[illegible]

[illegible]

[illegible]

[illegible] poisons the [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

ellment.

[illegible]

[illegible] as the [illegible] process

[illegible] the [illegible]

[illegible] the collected [illegible]

[illegible] with a little cold water [illegible]

[illegible] the time of [illegible] the leaf

[illegible] of granulation [illegible]

[illegible] which is [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

By rendering these [illegible]
[illegible] in a [illegible]
[illegible] of
treating Fistula in Ano. [illegible]
[illegible]
several Months [illegible]
[illegible]
[illegible]
from [illegible] for a short time [illegible]
[illegible]
[illegible]
[illegible] distant chances [illegible]
[illegible]
[illegible]
cure of [illegible]
action some time [illegible]
ulceration [illegible]
[illegible] other treatment [illegible]
[illegible]
has been [illegible]
[illegible] attenuations [illegible]
[illegible] ulceration
[illegible] have been [illegible]
[illegible]
[illegible]
of the [illegible]
[illegible]

Infiamed Ulcers.

[illegible]

Treatment. [illegible]

2. Fungus Ulcers.

[illegible]

some time after [illegible]

Treatment. [illegible] may be treated with [illegible] com-pressed & secured by a roller [illegible] & prevents the [illegible] not formed [illegible] be [illegible] into the [illegible] in [illegible] [illegible] & [illegible] [illegible] at [illegible]

3. Oedematous Ulcers of the Legs

[illegible] into the cells of the [illegible]. [illegible]

[illegible] in young persons [illegible] [illegible] drainage [illegible]

4. Sloughing ulcers.

These arise frequently from a weakness in the Granulations. [illegible] when the Granulations have arisen to a level with the [illegible] [illegible] ones are on the parts [illegible] often does not [illegible] at the edge of the [illegible]

but

[illegible]

[illegible]

[illegible]

may be accompanied with a cut occasionally at first. after the disease has succumbed readily to common treatment.

I shall now speak of ulcers which occur most frequently in weak constitutions. These generally start well at first, the granulations form rapidly and generally rise to a level with the true skin, with a healthy appearance but as a rule we see constitutional, for the granulations in a short time change their appearance and become of a purple colour, and a part of them are removed by ulceration,

The patient should then have a nourishing diet, Peruvian Bark, Elixir Vitriol, vacc water may be poured over the sore four or 5 Minutes 3 or 4 times a day, a weak solution of Lunar Caustic upon Lint and applied has proved useful, Citrine Ointment has also been of service. Lint dipped in an infusion of Oak galls, with Laudanum added to the sore, have sometimes cured ulcers which have resisted all other remedies.

We come next to speak of Indolent Ulcers

Indolent Ulcers

We

Where Nature has been remarkably frustrated in her attempts to perform a cure, the parts become indolent; have no disposition to form a Cicatrix, and when the ulcer is reduced the edges remain in a tardous indurated state in consequence of Cartilaginous matter being absorbed. When the ulcer is removed, (see w notes)

Treatment. The first thing to be done is to remove the callous edges after the ulcer has healed, and to change the inspissation of the sore to a healthy ulcer. This may be done either by the Knife or by Caustic, or it may be done by the means of Bandages & Prepare the Bayntons Salve that in most cases the adhesive Plaster will really answer.

When the Caustic is applied we should persevere in the use of it to the middle of the sore, and sometimes over the whole surface until the ulcer puts on a healthy aspect, taking care after it begins to heal not to allow it too near the edges, or we shall by that means destroy the granulations of the newly forming Cicatrix and prevent the cure, making the ulcer larger.

Under this head I shall speak of the use of Mercury, This may be used in

small

small doses, for a considerable length of time & if necessary the doses may be increased so as to produce a gentle Ptyalism

The Species of Cancer, is sometimes used or we may apply a Solution of lunar Caustic to the parts; or the Sore may be sprinkled with red precipitate; dressed with the Citron Oint=
=ment. Gastric juice, Muriatic or Nit=
=ric acid oak galls &c -

Carious Ulcer

Caries in the bone is the same as Gangrene in the flesh. Here the dead parts of the bone becomes a stimulus to the Absorbents to separate the dead portion. Bell says that every Sore seated upon or communicating with a carious bone is a Carious Ulcer.

Scurvy instead of enter into a discussion of the causes wh produce an exfoliation of the bones:

As soon as any portion of the bone becomes loose, it ought to be immediately removed if possible but when the bone is seated in a dangerous part it is very difficult to ascertain whether it is loose or not especially if the ulcer be large: but this may however be ascertained by

by introducing the probe, and if necessary enlarging the orifice. and pass upon the bone when if it is adherent to the second bone no pain will be felt, but if it be attached the pressure, or even slight touching, will induce great pain in consequence of the less perfect union, and wound the new & tender granulations. As blood follows, we may believe the dead portion to be loose. If the bone be loose in order to extract it, it will be frequently necessary to make an incision down to it for the extrac=tion of the loose portion. A Sponge tent how=ever often answers to dilate the orifice very effectually. This should never be shown when practicable to remove it, for granulations take place, forming a substance nearly of the con=sistence of bone around the dead part wh prevents its removal. Some times the ex=foliated piece is to large to admit of an incision being made sufficiently large for its removal; because if we divide the vessels in so hard and callus a part it will be very difficult to take them up. To avoid this danger, it is better to break the bone by a pair of strong Nippers, after wh the pieces can be readily extracted.

I know

I have a case of carious ulcer of the lower jaw which irritated the masseter Muscles to contract so that the mouth was kept closed, cartilages was formed in the same manner, so that the jaw could not be opened, occasioned by the callous of the carious bone. The Surgeon not understanding the cause, sent the Patient to this City to have it dissected, supposing an adhesion of the parts had taken place.

Varicous Ulcer.

These are caused by varicous veins & very much resemble ulcers of the indolent kind. The Vena Saphena most generally becomes varicous, and prevents ulcers of the legs from healing. This may be often remedied by a light bandage or lace stocking, but this is necessary to be continued so long that the patient is tempted to leave them off before the cure is completed. This may be remedied by an operation, performed by tying a ligature around the vein so as to take of the impure of the callous or blood.

This practice was revived of late years by Mr Hunter and after wards by Mr Home. I shall give you the treatment prescribed by Home, for performing the operation & recommend the patient to lie on a Table on which is placed a chair

or

and then over the back of it with the inner
foot of his Legs to the light. In this way the
vein will be completely distended with blood and
the room will be rendered convenient enough for
the Surgeon. but this can not always be done
while the patient is standing, for in this situation
it is sufficient to get the weight to fall on the foot.
and the patient not knowing the success of prior att=
endant on it is mostly restless and discontented and
his tremors are so great as to embarrass the surgeon.
I therefore apply a Tourniquet on the thigh so
as to compress the vein without affecting the inter=
=ior by this means the second distended with
blood & the operation can be easily performed.

The vein may be tied in the same manner
as so this the patient should be laid upon a Table
while in this situation: the Surgeon must pinch
up the skin on one side of the vein, and an opposi=
=tant on the other, who raises the skin transversly
across the vein, it is then to be divided over
the vein with a Scalpel, and will suffici=
=ently expose the vein. Sometimes a thin Fascia
appears in this case the vein is to be disengaged
from it. after this a bent Silver needle with
a blunt point is to be armed with a ligature &
Taper

ration the vein, and the patient placed in a horizontal position before the vein is tied to free it from all the blood. Gently a small piece of Flannel was over the vein directly under the knot formed by the ligature, so that when the sides of the vein have united the ligature may be cut away without injuring the vein. This compress should be about the size of a quill

In common use the ligature may be cut away about the 21st day. The ligature will generally come away from the 9th to the 12th day, but it is not necessary it should remain so long. After the ligature is loosened the edges of the wound may be brought together by adhesive plaster and a bandage of lint applied so as to keep on the ... alone & secure the ligature.

If the vein should be tended both branches of it must be secured. Some times both trunks of the vein are affected and require to be tied, but it will not be necessary to do both when one only is affected

in 6th Species of Ulcers, are caused by local or constitutional circumstances and continued by a peculiar diseased action, as in hereditary ulcers, cancerous, syphilitic &c

These may be remedied in 2 ways. The first is an entirely local may be cured by cutting the diseased part out with a knife, but if one flap is left after the operation as in lineal cancerous cancerous &c, the disease will be a relapse, and require the frequent use of caustic

2d. When the continuation of the ulcer depends on any constitutional injury, that injury must be removed before the ulcer can be cured.

Lecture 8th

On Fractures.

Fractures may be defined as a complete division of the bone, which may be either in the bone, but this is not always the case because the bone is sometimes fractured without any visible contraction alone, and the numbers in some

bones fractured in the same way. [illegible] most apt to be fractured in frosty weather, not that the frost enters the substance of the bone but it is about this period of the year when sudden light falls in cold weather produce fractures, but another circumstance, viz. the contraction of the Muscles, easily contributes to this cause for instance when we grasp over the Muscles contract with vehemence, and a sudden slip or fall occasions them to act with greater force, frequently fracturing practice. This is proven of intoxicated persons who seldom break any of their bones, in falling or falling which is owing to a great relaxation of their muscles.

When a bone is broken [illegible] it is not [illegible] and this is increased upon the least motion of the parts on which the fracture is, occasioned by the sharp edges of the fracture & rendering [illegible] the soft parts & causing considerable action of the Muscles; and when both the bones is accidentally shorter than the other a deformity [illegible] of the bone passing over the other by the contraction of the Muscles drawing the under extremity up.

The limb at the fracture receives a mark of flexion and a grating noise is perceived when such motion

motion, attended as before observed with much pain, and the limb is often distorted.

Fractures are either Simple or compound. A Simple Fracture is when the bone only is broken without any external communication

A compound Fracture is when there is a division of the bone and lacerating soft parts so as to admit of an external communication with the cavity of the fracture and if the external communication is small it frequently heals by the first intention, and hence the fracture is still one, and has been termed a compound impeded fracture

Treatment. In the treatment of a Simple fracture of the extremities, the bone should be placed in a state of relaxation, and the ends of the bones brought into their exact natural position. In general the consecutive action above mentioned ceases, when the limb is reduced.

In reducing the bone the limb should be placed in such a position as to favor the relaxation of as many muscles as possible and by this means the reduction is in general easily effected, but when it cannot be accomplished by the ordinary means the patient may be put into the Recipient

Eliminium Canini & this is often necessary, but I have been astonished in many cases to see my patients to great extent.

If indeed Inflammation it should be revived in bleeding and the antiphlogistic regimen, to reduce the inflam. bleeding is undeniable to purging because the last will restore the patient when he ought to be at rest, it is generally sufficient to keep the bowels open. The limb should be kept in its position by means of splints & bandages; (and a leather cuirass of which kept up.) Splints are still from distances and are of fair with Rollers, wood, leather, pasteboard & paste board of these the last is preferable, because they can be moulded to any figure, by wetting it in hot water & keeping it so for a short, and when it becomes dry it maintains its figure.

"Care may often not called to the accident till several days after it happened, in a considerable degree of swelling & inflammation taken place, this should be removed before we attempt the reduction of the limb, by bleeding, rest diet, and the application of dead water poultices, in this case the same rule must be followed.

It is some time before it is safe to examine the parts at the end of 8 or 10 days after the first dressing. If any displacement has taken place and an alteration be necessary, it can then be easily made, the new substance being then quite soft & pliable.

The patient should be kept to a low diet & and submit to evacuations by blood letting, in proportion to the inflammatory symptoms.

If the patients constitution be weak it it may not be necessary to evacuate at all.

The dressings at first should be loosely applied or else if the limb swell the circulation may be stopped & so produce Mortification.

The time necessary for an union of the bone varies, by the age constitution and place of fracturing, likewise upon the size and situation of the bone, The bones of young people heal sooner than those of old, fractures of the jaw or ribs heal sooner than those of the Femur.

The bone in some constitutions does not unite at all firmly, but forms a kind of joint and in fact the ends of the bones are some times tipped with Cartilage, and have an

joint

and have a sort of capsule or ligament, two cases of this kind were cured in the Hospital by moving the broken limbs so that the extremities of the bone might rub against each other; this was effected by causing the patient to support himself on crutches, and moving about leaning as much weight as possible on the injur'd limb, wh irritation seems to cause the process necessary for the formation of bone, this process very much accellerates the Union.

The adhesive infl.n is produced coagulating lymph is thrown out, wh soon becomes vas-cular, then cartilaginous, & lastly bone itself

Mr Hunter used to tell us in his lectures when the bone will not unite we should make an incision down to the bone, in such cases, but does not tell us of ever knowing such a case.

It has been recommended to make an incision down to the bone & imbrate the fractured ends in the same manner as recommended in wounds of the joints, but this is a very dubious painful & terrifying opperation, & can not be performed in all cases; as in fractures of the leg or forearm. I would rather advise to prop

a

a Seaton between the fractured ends of the bone which is a much simpler method attended with much less irritation & pain and can readily be performed in any situation. I have performed the operation in this manner with very good success, it was done by passing a needle armed with a skein of Silk between the divided ends of the bone, this by irritating the part caused suppuration & inflam with granulations; and in 12 weeks time the patient complained of much more pain in bending the arm at that place, these granulations soon united leaving only the small hole of the Seton which healed in a few days after it was removed.

In all recent it should be kept upon a long time, for it appears to me that the soft parts around the bone unite it sooner first.

Simple fractures usually unite by the first intention.

Union of Bone requires more time than the union of fleshy parts.

The coagulable Lymph first becoming vascular, then Cartilaginous and then bone, in this way the substance called callous is formed which being of a larger Diameter forms a Tumor round the bone at that place, but it generally diminishes becoming less & less till it differs but little from the bone it self.

At the first the granulations are full of vessels. If the wound be simply inflamed, Union by the first intention takes place, Suppuration & Granulations supervene, and the granulations are found to be vascular only at the extreme point the other parts being of the nature of bone.

Compound Fractures

The first bond of union is lost in compound fractures as the blood which effects that union escapes thro the external orifice.

Compound fractures some times hatche

of

of the nature of simple incision, but much oft=
ener however, they are punctured lacerated or
contused, the fractured ends of the bones being
so blunt as to tear the soft parts, again the
soft parts are very much bruised and the bone
broken into several pieces by the mechanic=
al force applied, as when it has been run
over by a waggon or any heavy body fall=
ing on it.

Fractures may be transverse oblique,
longitudinal, or spiral. Compound fract=
ures are attended sometimes with profuse
hemorrhage. when much blood issues from
the wound we should apply a tourniquet on
the principal artery; when the blood is thus
stopped we should next determine whether
the limb can be saved or not. If it be
so torn & mangled that the circulation can=
not go on to the extremity, amputation
must be performed. This may be done im=
mediately or you may wait till the soft
parts slough & then amputate the bone. If
amputation be necessary I should prefer it im=

immediately as well some time by that means prevent tetanus because the patient is more willing at that time to submit to it. In amputation sometimes considerable hemorrhage takes place from the medullary vessels. Dr. Gooch mentions a case in wh the stream of blood flowing from the medullary artery in the tibia was as large as a crow's quill, and as it ran in a bony canal in the tibia he proposed to make two perforations near the end of the bone with a small trephine, wh was agreed to and the artery in this means laid bare and secured by a ligature or pressure. But I have found in amputations of the medullary arteries the bleeding effectually stopped by a cedar peg, put in by the side of the artery so as to keep the orifice completely together, and left so for 8 or 10 days, until an union of the side had taken place. If the bleeding take place from any part of a compound fracture in the leg & cannot be stopped by other means, the Femoral artery must be taken up. Then

the

the pain is great it demands our attention for if it be suffered to run on to the inflammatory stage, the patient will be greatly weakened by the discharge of matter. his constitution becomes emaciated, and hectic fever ensues. When the discharge is very copious and hectic fever has taken place amputation is advisable.

Lecture 9th

Fractures continued In compound fractures we should endeavor to remove the splintered portions of bone, (when they can be discovered) if it can be readily accomplished; but if the pieces are attached so as to occasion much pain in extracting them we must omit it, till the process of exfoliation has completely taken place. It sometimes happens that the external communication is very small, so that the blood coagulates in the orifice, completely filling it up, and renders the cavity perfect so that the bone unites as in simple fracture. But if

if through too much efficacious nip ~~of the surgeon~~
with a view to apart nature . . .

The surgeon should be very careful to work
out the coagulum the fracture would be render-
ed a compound one. and so through the process
of suppuration & granulating. If the external
orifice be very small a portion of dry lint
may be bound on it wh will become wet
with the blood then dry & form a scale,
after the bones are reduced when the ends are
not splintered, the edges of the wound should
be brought into contact and secured by
means of adhesive plaster. I had a case
of compound fracture of the tibia where the
ends of the bone had made their way through
the cutaneous parts. the incision was on
inch & a half in length. not withstanding by
this means it was reduced to the state of a simple
fracture and the patient got well in about
6 weeks. if the inflm runs too high
it may terminate in Mortification. To
prevent this we should bleed and apply Bread

fresh & milk poultices – The bleeding should be according to the indication.

Some Surgeons are fearful of large evacuations at first on account of the copious discharge that takes place, fearing they shall reduce the patients system too much, not recollecting that the inflm. wh. succedes it is the cause of the discharge of matter.

But it is necessary to distinguish between mortification caused by inflm. & that which proceeds from weakness. If it be occasioned by weakness, Opium, Bark, Wine, &c should be given, but if mortification be brought on by inflm. in compound fractures apply a Blister. It will here be necessary to distinguish between that Mortification wh is produced by the parts being killed in consequence of the violence applied, and that wh is the effect of the inflm. induced by the violence, as the parts in the first morning lost their life must necessarily slough

Bones can not bear a great deal of inflm. without losing their life.

C–

Of particular Bones, and first of the bones of the Nose. These bones tho not so frequently as others are nevertheless sometimes broken

Sometimes the fragments are pushed into the Nose, wh occasions a difficulty of Breathing

When in this manner they may be reduced by introducing an armed Spatula, or some thing of that kind into the nostril, & when reduced it may be retained in its place by a lymn elastic Catheter if necessary, if they project outwards, they may be retained in place by applying a compress; or often they are reduced they may be kept in place by strips of adhesive plaster. if the soft parts are injured apply a Bread and Milk poultice.

Of the Lower Jaw.

Fractures of the Lower Jaw sometimes occur at the Symphasis but most commonly at the Sides & of one side only, tho sometimes they tho been in both at once. They occur most commonly between the Canine & Incisors

The coronoid processes are seldom ever broken

because they are so well defended ~~with~~ by Muscles & I never saw but one fracture of the Condile. We can easy tell when it is broken for the fragments be ever so little displaced, by rubbing the fingers along the bone, it will occasion pain; and the patient cannot keep the jaw against the other: when the fragments are displaced, it is easily discovered by looking into the mouth and examining the rows of teeth which are uneven. When the fracture is on both sides, the Digastric Muscle will draw down the symphysis, while the temporal Muscles draw the angles back wards,

Treatment. Some Surgeons advise pieces of paste board to be applied on the face to keep it in its place, but the upper jaw is the best splint to which the lower jaw can be fixed with a roller, applying the teeth directly together, having the rows exactly over each other and confining the jaws by a roller. The bandage which is usually advised is one with four heads applying the body of the bandage over the anterior & inner part of the chin, then crossing the heads upwards directly over the top of the head

x

and the other two heads from the anterior part around the Occiput & forehead alternately, But I prefer a Simple roller it will answer every purpose, The patient should be kept upon liquid aliment & forbidden all conversation or Speaking, & he should not move his jaw for several days. The dressing should be continued for three weeks but wt time an union will take place.

It frequently happens that the teeth are loose and under this circumstance authors have advised to extract them, but this should not be done on any account, as there is danger by this means of making a compound fracture. Comminuted fractures of the lower jaw are mostly accompanied with Death of the ends of the bone

Bones of the Spine

When the process of the Spine only are injured the consequences to be apprehended are not serious. But when the Spine is wounded there is always an extravasation of Blood

from the Vessels of that place, wh extravasation presses upon the Spinal marrow, Some have advised to make an incision down to the bone to discharge the effusion, but as it is very uncertain whether it be posterior or anterior to the Spine, (& if the latter it can not be of any use) I should not advise it. When the injury takes place in the neck above the third Vertebra, wh it mostly commonly does, the patient generally dies about the third day, a paralysis of the inner limbs comes on, & likewise of the Bladder, so that the patient can not void urine, nor scarcely feces & breathes with much difficulty. As it is only the Diaphragm wh comes on respiration, the patient should never be laid on his face to examine the Spine or for any purpose as it relaxes the muscles of the abdomen, would force up the abdominal viscera upwards, and prevent the Descent of the Diaphragm. If the injury happens lower down the patient may survive a longer time but I never knew a case of this kind from wh the patient recovered, The patient is compelled to lie on his back and the hips

on

on the patient which he lies partly

Fractures happen in different parts of the Spine. These most frequently occur in the Neck, next in the Loins but rarely in the Back. When the cervical Vertebra are fractured above the phrenic Nerve ex==it is the immediate consequence, but when below it is not so immediately fatal. But a paralysis of the whole parts below the injury takes place, There are cases when the injury is done down, in wh. the Patient lives 5 or 6 months,

When the Spine is fractured there is always a dislocation and the spinal marrow compressed the discharge of Blood &c. is found in from the wound upon the Spinal Marrow. This compresses the Spine, & hence the paralysis, some pieces of Bone are thrown on upon the Spinal Marrow I mention this to let you know the reliefs situation of your Patient, for I none never known a case where the Spine was fractured to get well, but the processes may be broken without any immediate injury to the patient There is now a case in the Penn.a Hospital

attempts have been made to extend the Spine & bring the fractured parts into contact This is seldom of any use, yet for the Satisfaction of the friends of the patient, we may put it to trial. If the injury is in the neck, the extention may be effected by passing two bandages around the head, one from under the chin over the top of the head, the other from the occiput around the fore part and secure them together, an Instrument is then formed, being excavated where it rests on the shoulders, and having a Screw at the top, and a hole in the piece directly under the Screw, to admit the ends of the Bandages, In this manner the extension is made against the Shoulders (previously having put a pad upon each) by stretching the Bandage in consequence of turning the Screw above.

An other method is to strap the patients head to and one end of the bedstead with a Leathern strap while the feet are tied to the other end of the bed; & in this way extension is kept up. having a hole in the bed opposite the Arms for a convenience. I once made the attempt at the Pa. Hospital, In about 2 hours I was much pleased with the experiment, as he required the use of his arms wh were before

(turn one page forward)

Lecture 10th

Bones of the Pelvis

The bones of the pelvis are very seldom fractured owing to their great strength. I once saw the Dorsum of the Ilium fractured

The Patient can not stand up without great pain, conveying a sensation as if he should fall to pieces upon motion of the part a crepitus may be felt

Treatment all that can be done is to keep the patient at rest, apply the bandage tolerably around the pelvis & bleed if the symptoms require, but Purges should be most positively objected to, because the detention of the patient will not allow the motion without injury, wh would inevitably ensue from the exhibition of purges. I once saw a case of the Separation of the Symphysis Pubis, in wh. the bandage is all that can be done. Union generally takes place in 4 or 6 weeks.

Fractures

before paralytic, but he died on the third day as is usual in such cases. He appeared to die in consequence of Mucus collected in the Trachea & obstructing respiration, owing to the weakness of the expiring force —

I could naturally turn your patient out on his belly to examine the Spine, I once did it but seeing my eye on the patient, I soon found that he appeared to be suffocating & I immediately turned him back. It is not safe to do more than turn him on the side, and in this situation you will examine the Spine very well.

There is generally a difficulty of passing Fæces, & a total suppression of urine, in this case the Intestines should be kept open, & the Urine drawn off by the Common Catheter, or what is more convenient the flexible Catheter, wh should remain in the Urethra, and the end of it be stopped with a cork, and by this means the nurse can empty the Bladder at any time. There is sometimes an involuntary discharge of Fæces, but I never knew an involuntary discharge of Urine —

There is great danger that the hurts on

wh

wh the patient lies will stand in ass. this should be aided with Sticking plaster.

No lasting cure can be expected. There is always a lap of sensation & motion below the fracture —

Fractured Ribs

The Ribs are seldom fractured individually, some times 1 or 2 are fractured at once.

The most common cause of fractures of the Ribs, are falls, or substances falling on us I have seen many from the falling of Ropes of Dirt.

This may be known by the pain which attends a full inspiration. A hacking cough is generally a concomitant Symptom, and by applying the hand on the side where the patient coughs, the Crepitus may be readily perceived; and if the Lungs be wounded the patient expectorates a bloody mucus, as the air passes into the Cavity of the Thorax a hackling noise is ascertainable on touching the part affected, this proceeds from the air insinuated into the cellular Membrane, as is called Emphysema — when this takes place

only in a small degree it is of no conseq-
-uence. There will be a small irregularity or
angle at the place of fracture. If you feel
on the angle it is of an irregular shape and
makes a crackling noise, sometimes a swelling
at the very lower part Emphysema, occasioned
by the air passing from the lung into the
pleura which at every expiration gives into the
cellular substance, and sometimes makes its way
over the whole body, When the swelling is
partial a cloth wet with brandy may be
applied to the Emphysematous part, and confined
by a roller, Mr Hunter has published an
account of the treatment of such cases, in the
Med. Chir. of the London Medical Observations,
which I recommend you to read -

The treatment is to prevent the exercise of
the ribs, that an union of the parts may take
place. for this purpose a rude bandage sho-
-uld be passed round the thorax, so as entirely to pre-
-vent the motion of the ribs in the act of respira-
-tion which must be restored by the Diaphragm

It sometimes becomes necessary to make a
puncture into the Cavity of the Pleura to discharge
the air, (Paracentesis). When this is done it
should

should be made between the sound ribs, and vary between the sternum & spine, as the pleura is liable to tear on inflex & if the puncture is made over the injured rib, it converts the simple into a compound one, for the skin already in reality a compound fracture; and it frequently happens that the wound in the lungs (made by the fractured extremity of the rib) is so small that the bone heals as in simple fracture. The cellular texture may be laid out in healing, if it becomes necessary, but never induces suppn, as I observed when treating of wounds.

The antiphlogistic treatment should be pursued, & in fact the case should be treated like a pleurisy.

For the cough wh often remains, the patient may take a Dimacetti Vinum, or a solution of Some anodyne in water containing nitre & some Some small doses of Liquid Laudn are very serviceable, for about 3 weeks union will take place between the fractured ends of the ribs.

Fractures

Fractures of the Upper extremeties

1st first of the Clavicle. These happen very frequently, and is generally about the middle, and circually across. Sometime obliquely from within upwards, & obliquely inwards & downwards

When the fracture happens in the middle there is a great displacement of the bone, and also when the fracture is from within downwards & inwards, owing to the weight of the arm & the action of the pectoral Muscles, the former drawing the Scapular fragment beneath the Sternal fragment & the latter drawing it inwards. but if the bone be broken from within downward & outwards very little or no displacement will take place because the Scapulary fragment, being pulled downwards by the weight of the arm is next firmly situated by the other fragment over wh it rests

When near the Sternal extremety there is seldom much displacement. The patient can not raise his head to the head, but always when requested to do this reclines the head to the arm.

Also if the bone be broken between the Coracoid process & acromion of the Scapula, no displacement will follow, because the ligament passing to the Coracoid process will confine one part, and the

to

to the acromion, the other, in this case an unnatural angle is only felt, & if the bones be left in this situation an abscess will follow & bring it to the state of compound fracture. This circumstance should be well remembered, for by leaving over looked the little motion it is allowed may prevent its healing and produce an abscess and thereby cause a compound fracture. In cases of fracture of the middle third of the clavicle we generally find the patient with the elbow of the affected side resting upon a table or sofa supported by the other hand, the affected shoulder considerably lower than the other, and an inability to raise the arm. By raising the arm a crepitus may be distinctly heard.

Treatment The former method of treating these fractures in England was to bind the knee between the shoulders of the patient pull both shoulders back, and while in this situation apply the clavicle roller so as to form an 8 in shape, and the patients hand suspended in a sling, but in this mode of treatment there is nothing to prevent the pectoral muscle from drawing the scapular fragment under the sternal one. I believe this is the present treatment in England

England & I have frequently been tried there, but with very little advantage, this action however seldom succeeds & in short is of no service, but attended with very serious inconvenences viz of excoriating the axilla, impeding the circulation &c. Dupuytren has lately very much improved the method of setting fractures of this kind, as the great object in fractures of the clavicle is to give some counter action to the weight of the arm & the action of the pectoral muscle, he places a wedge like rod of horse hair or flannel under the axilla, the largest end being upwards, around this there is a similar roller this roller should be repeated several times around the body to prevent its slipping, this prevents the scapular part from passing below the sternal one. The Pad enables the arm to act as a lever to the clavicle, and effectually prevents one fragment from passing under the other. The Pad may be of horsehair, wadded cloth, Muslin, or flannel. the latter is preferred.

Another Bandage is to be applied around the body and over the arm, crossing the elbow close to the body and confine it in that situation & thus prevent the action of the Pectoral Muscle, it may have one or two turns round the wrist & do not

support the weight of the lower arm, or a sling may be put around the wrist & hand & the other bandages to support its weight. A piece of soft linen or flannel should be placed between the wrist & body, the weight of the arm should be supported next, for this purpose an assistant should take hold of the elbow & push the arm upwards, this done a bandage is to be passed around in form of a figure 8, beginning as follows; say one end on the breast pass over the fractured bone under the elbow, and over the same bone again, then across the back under the opposite axilla, across the breast & so over the fractured bone again, pursuing the same course as before, we should then feel the pulse, to see if the circulation goes perfectly on, It sometimes happens that the pad under the arm & the bandages prevent the passage of the blood in the Radial artery, & you should always feel after applying the bandages if the radial artery pulsates.

Then ability another roller over the whole to keep it more steady. There should be a hole through the slip which passes over the hand, for the fingers to pass through and prevents it

from

from slipping up on the bone. at the end of 4 weeks the bandage may be taken off, tho a week longer will not be amiss, as the union will at this time be very weak

Lecture 11th

Fractures of the Scapula

This bone is frequently fractured in two places is neit, in the acromion & the inferior angle the former is but little covered with muscles and may be easily felt by the finger; and also as part of the Deltoid Muscle which supports the arm is attached to it. the arm falls to some distance below its natural position, when ever the acromion process is fractured it is to be treated exactly after the same manner of fracture of the Clavicle. It may be replaced by pushing the arm upwards, that the head of the Humerus may prop up the fractured portion to its proper place. the fore arm may be bent on the Humerus, and the bandage paper as above mentioned The Dressing should be continued about 6 weeks I have never but once seen any other sort of

The

the Scapula fractured, and first near nearly at its inferior angle, and fractured transversely from the base to the interior Costa and when the Scapula moved the lower fragment remained still, These fractures of this part of the Scapula occur, and when the lower angle is broken off it is drawn a little downwards & forwards by the action of the Serratus Major anticus muscle, and can not be pushed upwards, while the Scapula is drawn upwards by the Teres Major. To remedy this the hand should be brought forward to the other shoulder, which draws the Scapula around so that the broken edge may be brought into contact with the fragment. The hand should rest on the shoulder of the well side, and bandages should be passed around the arm & shoulder, to prevent any motion of the arm and keep it in this position & so prevent its moving the Scapula

Fractures of the Os Humeri

This bone is most frequently broken about the middle, When fractures happen about this place, there is no difficulty ascertaining their situation, The Patient can not raise his arm nor use it in any degree, if otherwise bens in any

I

in any direction, and the fractures may be readily heard & felt. The humerus is sometimes fractured at the two extremities. When the superior extremity is injured the inferior fragment of the bone most commonly passes inwards but rarely outwards or laterally, if it be fractured outwards the biceps flexor muscle tends to draw the body & arm towards the scapula.

This treatment, an assistant should seize both of the condyles, bending the elbow & drawing it a little way from the body, to put the muscles in a state of greater relaxation an other assistant should take hold, round the patient under the axilla to make a counter extension, or take hold of the opposite arm. The surgeon should take hold of the arm & place the ends of the bone in contact, this being done a roller should be applied around the arm from the elbow to the shoulder, it should be pretty tight making a moderate pressure; the not so tight as to stop the circulation. Three splints are sufficient to keep the ~~splints~~ fragments in their proper situation.

These should be at first loose, and secured by an other bandage. The bone arm now remains to be

supported, this is done by a sling or by passing a broad roller round the body, having previously put a cushion, or ball of tow, under the arm, for the purpose of making the side level for the support of the arm. The bandage for the support of the fore arm begins at the opposite side passing under the hand over the Elbow, round the body & then commencing the same course again; at the end of 10 days we should examine the limb, the union at this time will be so soft, that if any displacement has taken place, it may easily be remedied. By the end of 3 weeks the may omit the bandages gradually. If the forearm swell much we may wrap the bandages from the ends of the fingers; this is however seldom requisite.

Some times the ashmeri is fractured near its head, the patient complains of pain upon every motion of the arm, pressing the arm against the side causes pain. The lower fragment in most cases is turned inwards towards the thorax, I never saw a case where it was either before or behind. If it be inward the Elbow stands off from the body; if outwards

if outwards, the elbow bends in towards the body. When the lower fragment is in towards the thorax a pad should be applied also upon the axilla between the arm & the side to keep the bone in its right situation.

Fractures near the head of the os humeri have been taken some times for Luxations, & in the surgeon trying to reduce the Luxation much mischief has been done, by irritating the neighbouring & surrounding soft parts, so as in some cases to induce suppuration.

This mistake may readily be avoided by placing the finger in the axilla, when we shall be enabled to feel the rough end of the fragment instead of the round head of the bone, besides the projection in the axilla not being so large.

Some times when the lower fragment keeps its situation, and the patient can not use his arm, we are enabled to feel the place of dislocation only by extension & counter extension being made, & the crepitus may be felt by bending the arm. It is of great consequence to ascertain whether the humerus be luxated or fractured, for if the latter, & the lower end inclines the patient can not rotate his arm, when it is ~~[illegible]~~ inequal & illegal in this situation.

Treatment

recapitulation in fractures of the head of the bone begin the damage at the joint and wind up the shoulder after the extension & counter extension have been made by an assistant.

The Joints Joints then we applied; two of these will generally be sufficient if we want three if they be marked splints are have one on the inside, and one on the outer and the middle one of the arm. These are to be secured by a roller. The lower fragment is to be kept out of the pain, this is best made by a piece of flannel doubled up & placed under the arm, this just answers instead of a splint. This being done the arm is to be kept at the sides, and secured by a broad roller on the place, under the roller to a sling so the arm is free of too much motion

Sometimes a Somersaction takes place at the fractured part from the extremities of the bone being forced into each other by the broken fragments and the bones be seen as are Deformed. And in order to prevent this some recall be in, the we should examine it in a short, it stops, by that time the Deformity will have completely disappeared and

better enabled to judge of the proper situation.

Hence I have a case where I was so much prejudiced that I could not feel the bone until Mr. Dessault advised upon the operation to great to make a free incision upon the ecchymosed integuments & investigate the bone. I did this & found it to be sound, as & recovered without any permanent fracture. The natural process of ossification will soon restore it. It is recovered at the end of 30 days.

Sometimes a small fragment may be made into the canal of a large one & thus the bones will have united but the same the bones will have united and all doubt will be in danger of changing the direction to a considerable one, as soon as the application is done, the edges of the fracture should be brought into contact by adhesive plaster, & if the wound may unite by the first intention.

The femur is also sometimes fractured transversely, or the condyles and sometimes longitudinally & so to separate them.

When the injuries are discovered in this way by taking one fragment in each hand, and moving them backwards & forwards, we easily perceive the crepitus: if any one be directed we on

perceive

[illegible] in the same way, using the [illegible] that the [illegible] may be readily felt. I have already said that when the elbow joint is concerned in the injury, it is right to use three splints.

The one from arm should be rendered immovable at position, and after the injury is, are placed right, a bandage should be applied from the wrist to some distance on the humerus (half way).

Next splints four in number in the shape of an L. and forming right angles should be applied one over the internal condyle & one over the external one: then two more short splints are to be applied one anterior and one posterior, these splints are to be secured by bandages. The splints will extend along the bone arm, should reach to the joints. Reduction of the bone arm displaces the fragments and must be prevented by a bandage around the body and arm, at the end of 10 days we should take off the splints & examine the limb, and at the end of 10 days more we should take off the splints again & the arm should be gently exercised; this should be repeated every 10 days to prevent stiffness of the joint, after the 20th or 25th day the [illegible]

In Fractures we have seldom contusion and bruise

Fractures of the Olecranon

These are usually caused by falls on the Elbow and are always transverse.

When the Olecranon is fractured the Patient is not able to extend the fore arm, because the Triceps Muscle not extends the arm is inserted into the detached fragment, the upper fragment is drawn a little upwards from its place, by the Contraction of the Muscle & you may move it from side to side.

Treatment. First the fore arm must be extended and the process being placed in its situation is to be secured by bandages (warm) from some distance above & below the Elbow beginning at the wrist & wound to the Shoulder.

When the bandage has got near the Elbow, the Tension must full if any portion of the Skin has got between the divided ends of bone: the bandage is then to be continued on. A Splint Fracture be applied on the anterior part of the arm to prevent flexion. After 10 days we may examine the state of the fracture, and after the 20th day we should remove the Dressings gently & gently

gently flex the arm, in order to prevent stiffness at the joint, and lance Tissues hereafter.

The Splint should be continued about 15 days after the perfect union takes place

Fracture of the Fore Arm

The bones of the fore arm are frequently fractured, & the Radius much oftener than the Ulna; the Ulna being seldom broken alone

The Radius is most commonly fractured at the Wrist when the Ulna is not broken with it, and no difference here can be seen in the length of the Radius; all the difference that can be seen, will be an angular projection of the fore part of the wrist; the fracture is commonly so low as to be taken for a luxation, the Surgeon will put the arm in a Sling, and an union will take place forming a very disagreeable projection, & the patient cannot rotate, rotate the arm as usual, This may serve as a distinguishing mark as in fracture there is always an angle formed; and we may increase distinguish between fracture & luxation by the crepitus attending the former, but besides the crepitus (which cannot always be felt

felt; the may know by the tubercle at the inner end of the radius, not being opposite to the tubercle ulna, of the Ulna as usual. If Some times happens however, that both are broken in the same place, when this is the case the patient can not lift his arm, the Surgeon may be felt the arm ends at the place of fracture, and there will be a lateral deformity - ion caused by the bones being brought nearer to each other together. —

Treatment. To bring the divided surfaces into place, an assistant should take hold of the elbow and another of the hand, & make the necessary extension; while the Extension is making the Surgeon may replace the ends of the bones without any difficulty by taking hold of the arm and Squeezing the flesh in between the bones so as to press them out. The inter osseous ligament will prevent their being pushed too far out, this being done a bandage is to be applied, beginning at the wrist & extending it up to the Elbow. care being taken not to move the ends of the bones, To splints should then be applied wh should be neither thin the arm, & should be of firm materials; pasteboard without being used

being wet answers

[illegible] must answers very well, the splints should be covered with soft [illegible] & extend to the ends of the fingers. The splint on the back part of the bone arm should be a gutter with the upper end below the elbow, or else the patient will bend himself when ever the arm is extended.

A Gutter is to be made around the wrist & the bone arm supported in a bandage hanging down & keep the shoulder [illegible], or else the patient will not be able to retain the hand as usual if it be suffered to rest in the position, at the end of about four weeks union will take place

Fractures of the Metacarpal bones are very rare, but they are usually a indeed always fractured outwards or inwards. The Extension can be made by pulling the fingers. And it is merely necessary to apply two Splints one on the fore part & one on the back part of the hand about the length of the hand & secured by a roller.

The Phalanges are some times fractured They are easily replaced & secured by the small splints

splints, pieces are on each side and on the back & one on the front in the groin & the thigh and a roller passed around them. If the bones are not properly adjusted the proper remains under after this.

Lecture 12th

On the Femoris

Fractures of the lower third are very difficult to detect, the muscle or muscles which in this case have some tendons at the knee, and some instances at the heel and most generally at the middle.

The operation may be known best by the pain of the patient, and by the length of the injured limb. Some pieces of a fractured bone in the leg the fracture is obvious & which be considerably shortened as much as a inch, the muscles at one portion slipping over those of the other in

in consequence of the contraction of the muscles, of an inability to move the leg. The extremities of veins in this region, of course at that place a union fistula or varicosity. In this the blood will be retarded for two reasons, and thus the blood will be retarded for two reasons, and thus an inflammation of the vein may ensue, the other of which will occasion a tumor with some inflammation at the place. The cancer fragment is found under the injured one.

Sometimes a material defect of the bone maintains its situation by reason of its very transverse. In that case as the deficiency is not entire it may be known by other signs to exist in this bone.

The shortening of the injured leg is owing to the action of the muscles on the leg, rendering the inferior portion redundant; also to the action of the gravity of the body when in the causing the inferior extremity of the bone to fall downwards.

The great difficulty in the treatment of these injuries when they are recent means to counteract the tendency of the bones to pass by each other from the foregoing causes.

The method made use of by the ancients was to place a bandage round the trunk

[illegible] under the arms, & fasten it to the rear of the leg, on the outside, to the outside brace & round the rear of the leg to the extension and connect the extension bar to it.

To this, it is an objection that the connection left [illegible] the Centrach. [illegible] on the leg & thus the projection of the rear, [illegible] an [illegible] can not take place.

The manner in which [illegible] as the same have been tried is [illegible]. [illegible] increase [illegible] the [illegible] is [illegible] more convenient [illegible]

I. The Extension & [illegible] [illegible] is [illegible] by the [illegible] and [illegible] of [illegible] [illegible] [illegible] the thigh, are [illegible] [illegible] to decussate each other at the [illegible]. A [illegible] [illegible] applied at the posterior [illegible] [illegible] at the [illegible] [illegible] of the thigh. [illegible] are [illegible] [illegible] pieces of cedar [illegible] [illegible] leather. [illegible] are secured by pieces of tape tied round one at the upper & one at the lower end. Two small bundles of straw, are then applied, one on the inside [illegible] is shorter, and the other on the out side, and secured by tape.

To

to prevent the great bones turning out, a bandage is fixed to the upper trochanter, and around the foot of fixed in the other side. This is now I believe the mode of treatment in London, it is however inconvenient.

Mr. Pitt I have seen first the Lithotomy of the aunts was according to the Prussian Method in a fit of Apoplexy, when the bones were straightened & he therefore changed the position and ordered the patient to lie on the injured side and have the thigh drawn up towards the chin & the leg bent on the thigh and thus keeping the injured in a state of relaxation. But this will not be found to answer, for often the ends of the bones will irritate the muscles causing them to contract immediately & shorten the bone. Besides we cannot ascertain the length of the limb, since measuring from the anterior spinous process of the ilium in this position is very inconvenient. Besides the patient is apt to turn on his back when asleep and the continuance on the side is very irksome and indeed the patient can

not

not lie on this side of long, to elevate his
it has been contrived for the patient to lie on
his back, & to have his weight & leg to rest on a
machine some what like the rest in a school.
So that the leg might be replaced, by this
this position every time the bed pan is put
under him, the limb will be displaced. To
prevent this the leg of his same side was
to be confined & bandaged with pillows to
keep the other one, which must have a hole
cut through it & invite the limb for the pur=
=pose of the pocus to the pan which is to be placed
under it. The pelle is to be filled with
cushion & is made to fit it, but this is very
complicated & difficult to fit and is therefore
impracticable in private practice.

He has however made an improvement in
the bandages, having them sewed in the form
described manner so that he could may be
examined in first opening them at the ob=
dement without disturbing it.

I have never known Mr Pott's method
described in a single instance. The patient
will always turn on his back in the right
side another, very serious inconvenience is

the

We can not take advantage of this in the other extremity, I find the reference to Mr. Pott's plan of Pott's test in the Lancet Hospital, a boy was a patient of the Radical with a fractured femur, he was treated allowing to fix Pott's direction after a while the same method & he was permitted to get out of bed some time as his speech he fell, and the bone was broken exactly in the same place, he was again admitted & the deformity was less, was then extended & reduced much sooner than before & he afterwards was much less in pain.

All these modes are found to be inconvenient for keeping the injured limb. The best method only secured in the lower extremities which Pott's is in accordance with the Radical Plan.

Desault has greatly improved the Dressing of fractured thighs by the invention of the long Splint, this is the latest & best method.

I now lay upon Desault's Treatment the first thing to be done is to give have a proper bed, this should be made of firm boards covered with a strap, or if

if this cannot be procured, a Sacking bottom very tight so that the patient can not sink down, and he should not be allowed more than 2 pillows. There are several parts of this Dressing. 1st there should be 3 strips of tape laid transversely on the bed, one to come just above the knee & one just below it, one at the upper part of the thigh, and one at the ancle, over this a broad piece of cloth wh may be of Muslin or Linnen, to cover the Menses in, this should be widest at the outside having the acute angle at the outer & upper side, next on this a bandage of strong enough to reach round the thigh, laid with the edges in contact or so as to lap a little with each other, & placed so as to reach from the perineum to the knee; 4th a Silk handkerchief laid so as to come under the perineum and across the pelvis to make the counter extension. The Patient may then be laid upon the Dressings, on her back, have at hand two splints of pasteboard or shingle, next 2 strong bandages, one to wrap over the tuberosity of the ischium

and the other around the foot, a silk handkerchief answers very well for the last. This should pass around the ankle crossing on the top of the foot & tie on the sole.

5th a short splint of the length of the thigh to be placed on the anterior part of it. 6th a small piece of Leather spread with adhesive plaster, & laid on the perineum, the hair being previously shaved off, to prevent any excoriation from the counter extension handkerchief, 7th an other handkerchief to pass around under the heel, and circumposited at the sole of the foot, brought below it & tied to make the extension; the same caution is here requisite as on the perineum, 8th a short splint to go on the inside of the thigh, and as long as at the out side for making the extension, the extension & counter extension & counter extension being made & the bones placed in their right situation the short bandages are to be carried one leg one on the thigh, so as to make the appearance of one continued bandage.

Fig

[illegible] the second piece of linen over them & stitch'd in between the selvidges & c. &c. —

They should not be applied very tight or they would impede circulation, the great object of this bandage is to keep the Muscles more at rest —

The long Splint, now called the Inner Splint, is to be applied to keep up the extension.

Some excavated longer so goes under the axilla, the hole at the end of the Splint is next to receive the counter extending perineal pad for securing it, the hole at the other end of the extending one, after passing over the heel, and the leg in bending the heel towards, it is designed for pushing the foot straight, and keeping the extension directly under the foot in a straight line.

The other Foot Splint is to be rolled in some manner to keep from the side of the foot to the perineum — It is then a thin piece of Single Tee placed on the anterior part of the thigh, & an other on the posterior part of the thigh immediately over the fracture x. Notwithstanding the Splints are padded in linen, there will be when they are applied some hard cavities

the

which are to be filled up with bags of chaff placed to fill the cavities formed by the straight splint & the shape of the leg, chaff is preferred because it can be removed from one end to the other easily. The whole then are bound together by the strips of tape

In order to keep them still firmer a wide bandage is rolled around the splints and the long splint, two or three times with pressure to any motion, and the splint is kept more firmly to its place. The bandage being rolled around the foot & fastened to the lower end of the splint in this way extension & counter extension is kept up. And the patient moving many points of rest upon lying on his back remains much easier than in any other position

We should now examine the length of the limbs, if the fractured one be too short, increase the extension & when the bandages get stark they should be tightened, The fractured ends should not be drawn so as to come in contact at first when there is violent contraction of the muscles it will cause

pain

great excoriation, but in fixing a mechanical extension for a few days, the Physiologist yields to the force & we cannot wonder

Lecture 18th

The Patient now in the interval for fixing a the extension, is not that originally proposed by Mr Bennett, but is considerably altered in its form. The one originally invented but seldom come only to the upper part of the thigh or the illi=um and extended a small way below the foot. The fault of this apparatus is that the Slip for the Counter extension is too rose=verse with respect to the direct position of the leg, tending therefore to throw the Inferior fragment of the bone outwards, from its apposition with the other. To remedy this I therefore lengthened the Splint so as to reach

ed to the axilla: by this means the place for securing the counter extending force, could be brought to a straight line with the limb, and by placing a roll to the part in contact with axilla, a portion of the counter extending force might be supported under the axilla, and thus prevent the excoriation of the perineum. This is particularly useful in women whose limbs is very apt to get under the bedding and excoriate the parts. When excoriation takes place they may be treated with a little ointment; this I have found an excellent remedy. To prevent excoriation it is a good plan to remove the bandages & wash the parts every morning.

An other student in Desault's method of dressing was, that it bred the wheals is too much authorised. To remedy this Dr Harrison proposed having a block fixed at the lower end of the splints, so that the bandage around the foot might pass over it, and extend in a more direct line with the limb.

a Caution

A Caution with regard to the extension of the leg, as before mentioned might be observed viz that of making the extension by degrees, for soon after the fracture the muscles are more rigid, than after a day or two, therefore some the same force with regard not at first effect the extension, may be sufficient, and the great force at first might excoriate the parts. For the shade this is all the ornaments necessary in an oblique fracture of the femoris. If it be transverse the parts some times remain in a position, and need nothing but simple splints.

an aim mentioned.

Some time fractures occur at the end of the femur, this may be near the trochanter or near the round head of the bone, or the bone at only may be fractured within the acetabulum. The patient is often sensible of the crack at the instant it happens and cannot raise himself from the ground, walk, or stand. The Mr Respect

Q. Paulet mentions two cases where the patient could walk the fragments having become so interlocked. The foot turned inward. Seldom or ever anticipated this but sometimes to do so. In a person of pretty regular extent the limb, if no is called in soon after the accident but if a considerable time has elapsed more pain will be necessary, and I have sometimes been obliged to have it dislocated by Pulleys. The extremities being brought into contact the Crepitus may be perceived.

There is an other circumstance by which the extremities may be found. Place your fingers on the great trochanter & then Rotate the limb, if the Neck of the bone be broken the rotation will appear to be on the axis of the high bone or as if the bone revolved on a pivot, but if it be broken lower down, the axis will be nearer off and the trochanter will describe a much larger circle. The Shaft of the high bone revolving on a pivot will be strongest when the Neck is fractured nearest the trochanter. If the bone

be

If the limb be much inflamed we must
continue setting it till the inflam is abated.

The fractures at the Neck I believe heal
as soon as any other part of the bone
unless when they occur within the Capsu=
lar ligament; I have seen a case where
a fracture of this kind did not unite in
eight weeks, as we can not always ascer=
tain exactly fractures of the upper part
of the thigh it is right in all operations
of this kind to apply Resault's bandages

It seems be right to inform the patient
of the liability of some other fractures
occur within the capsular ligament or
even in any part of the Neck of the bone

The Resting should be continued 55 or
60 days Resault says. I have seen but
very few fractures of the Neck of the thigh
bone, indeed I may say but one, in this
case the bandages was taken off at the end
of 6 weeks and the union was yet very
soft. The patient could not walk for
near a year, and still limps, yet he was
not aged. I think that only a part of
ligament

ligament not so between the divided extremities. In every case however the shaft commence to separate according to Dupuytrens

Contusions on the bulbus are sometimes mistaken for fractures of the head of the femur, from most commonly in this injury the length of the limb being the same as the sound one -

Sometimes the femur is projected lower down than the

without securing the shoe to the contrary the
foot frequently slipped forwards and backwards
when it is broken this manner, points similar
on each side are sufficient. (I should wish you
and answers this page & very considerable a
thick compress should be put under the leg in
case the lower fragment should be inclined be-
cause this produces abscess, & causes
an unfavorable result. Instances of the
high bone of this fence, are easily sec-
tained.)

The thigh bones at the perineum are
very little the patient cannot move
his leg, broken the condyles are in fine adj
the exterior may be set by pressing them
together with each hand, or tying them to-
gether. I never but once saw a case of this
kind, and this was at the Hospital but
in this case, the extremities of the upper
fragment pierced through the integuments
and made a considerable fracture, comm-
-unicating with the lower, which in the upper
first shortened. Spints on each side are

but a sufficient reason. — I should now have
Dr. Hutchinson's method, or an inveterate a
very impertinent one, sometimes answers
better than (D)efrauds. The medical object is
to make extension with equable elevation fall
on a limb & with the least pressure & therefore
with any displacement of the elements in a
fractured limb. I have seen a case in which
advantage is taken by the last iron splint
which, the advantage in a diseased knee
bone side & resting, when the fine
[illegible] for an angle in the upper by
this manner of keeping an ankle down
[illegible] & a compress pad, and perhaps
I think that a bandage in the usual manner
might [illegible] same as not [illegible].
The chief use of bandages seems to be [illegible] it
[illegible] of the muscles and
[illegible] preventing [illegible] swelling.

Lecture 14th.

Fractures of the Leg.

There occurs most frequently about the middle, and when transverse, accompanied with little or no displacement of the fragments but if the bones are broken obliquely, the lower fragment passes behind the upper, forming an angle anteriorly; the upper and lower fragments being drawn back by the contraction of the muscles. The tibia, is more commonly fractured, than the fibula. The occur some times at the upper end near the knee, and at the middle, and sometimes near the ancle. If one bone only is broken, in order keeps it in its proper situation. If it be the tibia by grasping the limb above and below, and bending it into the leg, the rupture may be ascertained; If it be transverse, no distinction need take place.

I once had a case of this kind, when the patient, in bending his limb, [illegible] remain in

for three days, [illegible] case [illegible] [illegible] I had been mistaken that the limb had not been broken. The bandages were then taken off with [illegible] [illegible] [illegible] [illegible] result. The family [illegible] [illegible] [illegible] mistaken. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] frequently [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] a considerable [illegible]. In [illegible] cases [illegible] [illegible] [illegible] [illegible] upon the bandage, [illegible] [illegible] [illegible] the [illegible] [illegible] by moving the foot. — —

Treatment.

The limb is to be laid on a pillow. Here, the extension and counter extension be made, and the fractured extremities are to be in contact, & after [illegible] [illegible] [illegible] from the ancle to the knee [illegible] [illegible] [illegible] [illegible] [illegible] examine [illegible] [illegible] the straps. During the application of these the extension and counter extension should be kept up, by the assistance of two persons, [illegible] [illegible]

[illegible]

[illegible]

[illegible]

has been greatly improved by Mr Stokhouse's method. Some change, on the contraction is made by the pieces of tube placed on the inside, and two on the outside of the leg. Then a roller bandage should then be applied below the knee so as to secure pain in that situation. This should be done too, or else it would not be all so well in consequence of the increased pain being produced. But the method is, I think, not to be under the foot but on the top of it. The tube are made to be made the attention. Such bandage is to be applied upon the limb, so as to remove each from the knee to the ankle. The attention of contraction are now to be made in position, which the surgeon begins first bandages.

Two joints with contracted tendons in this manner, leg are next to be taken one at a time. If leg is to be kept straight the two extremities of the extremity of the joint and the whole of a man is placed then a leg or one extremity foot are taken with

wooden pieces. The extension mentioned is like to the one by which means the extension is completely free, and the gap of chap. 6 to be taken between the leg & patient's one on each side and the complete one a hollow. The greatest inconvenience resulting from this mode of treatment is the uneasiness

The tendency of the bones when in first stages to form unites in consequence of the lengthened position as much as the patient's will, but treatment will not be attended with considerable inconvenience in many other cases as it may be used to increase the injury by a passive contracting tendency, or it can be made effective to extend the limb, and to apply lengthening at the same time and to apply lengthening with the extension and counter extension in an uneven direction so that it is without a side incision.

The best form of treatment for disease where the joint matters are so complicated, are use of splints & plaster. Sometimes the limb is fractured in many different points in which case splinting at the place seldom

any disfigurement means but the joint is seen
at the angle, and becomes very much enlarged,
and is often difficult to cure. I have seen a case of
this kind where all the antiphlogistic remedies
had been tried as bleeding, purging, cupping,
the application of leeches &c. but with no be
neficial effect. The cure must be extension
& counter extension, and the antiphlogistic
measures for, which should be kept in
use a long time, as unless you can take place
you will see the pain, or at the most the swell
ing will be reduced for a weeks, and the
swelling should be considered for six
weeks, and then moved, but little, and very
cautiously, when it is practicable at the end
the cure requires six weeks.

The tibia is more frequently at the lower
end, near the ankle, but it may be a break,
it may be fractured in the middle or
above. But the side is sometimes broken
by an obduction of the foot and the last girl
wise luxated. The reduction of it may be easily
accomplished by gentle flexion and

making extension. The fractures of the patella bandages should not be used for the same reason as in the long arm. Two splints are to be applied at the sides of the leg & the foot as the one cannot be accomplished if the foot be allowed to move, because the lower fragment follows the motion of the foot.

In about 25 days union will be effected. --

Of the Patella.

Fractures of the patella are comparatively rare, sometimes they are oblique, sometimes transverse or longitudinally. The transverse are generally occasioned by a violent extension of the leg, as the result of violent external force as falling on the knee &c. When a fracture of the patella takes place the knee becomes immovable and the upper fragment is drawn upwards by the contraction of the muscles & the lower fragment being fixed cannot move. The patient cannot walk forward, because he cannot extend his leg; but can go backwards

drawing his leg after him. When the leg is extended on the thigh, the upper fragment will sometimes come in contact with the lower one, and the crepitus may be felt. In longitudinal fractures the vacancy can easily be felt, the ligaments are [illegible], and effusion may be [illegible] [illegible] [illegible] [illegible] [illegible].

Treatment.

In transverse fractures, bring the upper fragment down as near as you can to the lower one. The patient is to be laid on bed, and the limb raised by means of pillow, so as to relax the extensor muscles of the leg. The leg should be treated in the same way. When the patient is placed in this position, the fragments are held close and a bandage from the toes to the knee. The assistant then holds the upper fragment down while the surgeon applies another bandage from the upper part of the thigh. The fragments being thus held together a [illegible] is to be applied above the upper fragment and a [illegible] below the [illegible].

[illegible] compresses are secured by a roller, applied round the knee, making in the form of figure 8, as follows: beginning above the patella [illegible] then [illegible] over the patella just below the patella, round the [illegible] again, and then over the knee joint above the patella and down a-round the [illegible] [illegible] again, this is the best mode of dressing. The compresses being secured, and the bandage over the patella [illegible] [illegible] [illegible] it between the [illegible] [illegible] [illegible]. In this manner the fractured ends of the bone [illegible] [illegible] in contact [illegible]. The bandage [illegible] [illegible] the [illegible], keeping the [illegible] from [illegible] [illegible] [illegible] from the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] but [illegible] the [illegible] of the [illegible] [illegible] [illegible]. To pre-vent flexion of the leg a [illegible], reaching from the [illegible] nearly to the heel is to be applied [illegible] on the posterior part of the leg; it would be covered with a flannel, and secured by a roller. If the splint reach be-low the foot the inflammation occasioned on

on the heel may cause ulceration. The leg is to be kept close some time. Sometimes surgeons have been afraid to bring ends of the patella in contact, fearing the bony matter would be effused into the cavity of the joint, and occasion anchylosis. If the bandages on the upper fragment be too tight, anchylosis will sometimes actually take place. Inflammation causes an absorption of the cartilages, and union takes place between the bones, rendering the joint stiff. The bandage should never be obliged tight if much inflammation exists. There will be a good while taking place, a cord & blacks, if you the swelling becomes large. The arm is to be secured behind surgeon's. For longitudinal fracture, a compress is to be applied at each side, and the flexion secured. Sometimes the writer hammock, when no attention is paid, retraction of three or four inches, and a ligament is formed uniting the ends of the bones, & first the motion of the leg is lost we can seldom bring the fractured ends of the bone so close

together as to form a bony union.

This ligamentous union, altho' it has been supposed an imperfection in the animal economy, is a surprising proof of the perfection thereof, for a bony fracture had been thrown out and completely ossified, the knee would have been entirely stiff, whereas, by this ligament being formed, the patient may come to have the perfect use of his limb, by gently exercising it daily. The patient should set on a table and swing his leg as much as possible. altho' it will require length and steadiness, yet by perseverance the muscles will accommodate themselves to the extra length of the tendon, and the patient will be able to walk as well as ever.

Emp.[re] of Arsenic

Arsenic White (oxide) ℥j

Sulphur ℥j

Oil Olive linseed - ℥j

White Lead ℥j --

The above has been found useful in Cancers & ill conditioned scrofulous ulcers —

Thatcher's Dispensatory page 291

PHYSICKS

LECTURES